

NOTES AND EXTRACTS.

JAMES GLAISHER.

From Nature, February 12, 1903, page 348.

We regret to see the announcement that Mr. James Glaisher died on Saturday, February 7. Born April 7, 1809, he had nearly attained the great age of 94 years, the major portion of which was devoted to unceasing work of a varied nature, mainly, however, directed to practical meteorology.

At the age of 20 he was appointed as assistant on the principal triangulation of the ordnance survey of Ireland, and from 1833 to 1836 was an assistant at Cambridge University, whence he proceeded in the latter year to the Royal Observatory, Greenwich, and having been, in 1840, promoted to the position of superintendent of the magnetical and meteorological department, he remained there until his retirement from official life in 1874.

His contributions on subjects bearing on meteorology and astronomy were too numerous to allow of our giving more than a passing notice. His Hygrometrical Tables, published in 1847, which have reached their eighth edition, are still the standard work on the subject for the British Islands. Travels in the Air (1871 and 1880), Diurnal Range Tables (1867), Mean Temperature of Every Day for Greenwich, 1814-1873, Report on the Meteorology of India, and Meteorology of Palestine are among his chief writings.

From 1862 to 1866 he made twenty-nine balloon ascents in the interests of meteorological science, and the results were given in reports to the British Association at their annual meetings of those years. The ascent on September 5, 1862, is particularly memorable from the fact that he and the late Mr. Coxwell attained the highest distance from the earth (37,000 feet) ever reached, and formed the subjects of a most thrilling experience, which nearly had a tragic termination for both of the intrepid aerial explorers.

As the pioneer of systematic organization of meteorological observations, the results of Glaisher's endeavors may be seen in his weekly, quarterly, and annual reports on the meteorology of England, contained in the periodical returns of the registrar-general of births, deaths, and marriages for England and Wales during the long period of sixty-one years (1841-1902). He was a juror in the class of scientific and philosophical instruments at the exhibitions of 1851 and 1862, and, apart from his scientific work, was actively engaged in other useful spheres of labor.

He was a fellow of several of the learned societies. For upwards of half a century he was on the roll of membership of the Royal Society, to which he was elected on June 7, 1849, and from time to time he contributed papers to the Philosophical Transactions. In 1850 he was one of the founders of the British Meteorological Society, now the Royal Meteorological Society, and for many years took a leading part in the conduct of its affairs, being its original secretary. "who nursed it through its infancy and youth, and left it to other hands only when it was old enough and strong enough to walk alone." (President's address in the jubilee year.) He was also a past president of the Royal Meteorological Society, the Royal Microscopical Society, the Royal Photographic Society, and the Aeronautical Society of Great Britain, a fellow of the Royal Astronomical Society, and for many years was on the executive committee of the Palestine Exploration Fund, of which he was for twelve years the chairman. He had also been honored with the honorary fellowship of several foreign scientific bodies.

SNOW FROM A CLEAR SKY.

The Gazette of February 18, Galena, Ill., contains the following:

A peculiar weather condition prevailed here for a short time last night. Between the hours of 10 and 11 p. m. there was a fall of snow to the depth of one-eighth of an inch and yet the stars were shining all the time. Inasmuch as the snowfall preceded the arrival of the high gale that blew during the latter part of the night, it was probable that the snow had been carried in the air for a long distance and precipitated here.

The rather plausible explanation here given requires special confirmation before it can be accepted. It is equally plausible and more probable that the snow which fell from the clear sky actually formed near the place where it fell. In perfectly still cold weather the Editor has seen snow crystals continue falling during the night until more than one-eighth of an inch had accumulated. In such cases it was evident that the air had cooled to a temperature very near saturation, so that the particles of dust floating in the lower air became the nuclei for the formation of snow crystals. The latter being heavy, slowly descend and doubtless grow as they fall; in fact, there is no known reason why they should not continue growing after they reach the ground, since the crystal is undoubtedly

colder than the average temperature of the air. Very large snow crystals, sometimes one-half inch in diameter, have been recorded on some occasions.

This deposit of snow from a clear sky, like the fall of rain from a clear sky, may also be due to the cooling of the air at a considerable altitude rather than near the earth's surface, and the cooling may be due to a mixture of cold and warm currents. Such mixtures, as is well known, can not form heavy rainfalls, but may produce the slight amount of precipitation implied in this snowfall from a clear sky at Galena, where a few hours later in the night the temperature fell to -17° and to -23° , with a heavy gale.

SUNSHINE RECORDS AT HAMBURG, GERMANY.

The German meteorological observations for 1901, at stations reporting to the Deutsche Seewarte for the year 1901, has lately been published. In addition to the monthly summary for each station and the hourly readings from self-registers at four normal stations, this volume gives complete statistics of the weather on stormy days on the German coast. The appendices give the details of the duration of sunshine at Hamburg and the tables of contents of the annual volumes published by the official meteorological services of Baden, Bavaria, Prussia, Saxony, Wurtemberg and Alsace-Lorraine, and by the private services at Magdeburg, Bremen, Wiesbaden, Frankfurt on Main, Aix-la-Chapelle. From the sunshine table for Hamburg, computed by H. Koenig, we take the following abstract:

Months.	Total number of hours.	Percentage of possible sunshine.	Number of days without sunshine.
January.....	67.5	27.1	9
February.....	56.4	20.7	10
March.....	46.0	12.6	12
April.....	160.0	38.4	5
May.....	196.9	40.0	2
June.....	126.3	25.0	2
July.....	190.3	37.5	4
August.....	177.9	39.0	2
September.....	164.4	43.2	7
October.....	62.7	19.2	13
November.....	41.0	16.0	15
December.....	13.2	5.7	22
Total annual.....	1302.6	29.1	103

The hourly distribution of sunshine is given in hours only, without the corresponding percentage of total possible, and is as follows:

Local time.	Total annual duration.	Local time.	Total annual duration.
	Hours.		Hours.
5 a. m. to 6 a. m.....	2.9	2 p. m. to 3 p. m.....	139.7
6 a. m. to 7 a. m.....	16.9	3 p. m. to 4 p. m.....	123.5
7 a. m. to 8 a. m.....	35.8	4 p. m. to 5 p. m.....	100.8
8 a. m. to 9 a. m.....	73.8	5 p. m. to 6 p. m.....	78.2
9 a. m. to 10 a. m.....	102.7	6 p. m. to 7 p. m.....	43.7
10 a. m. to 11 a. m.....	127.4	7 p. m. to 8 p. m.....	3.4
11 a. m. to 12 noon.....	137.8		
12 noon to 1 p. m.....	155.2	Total 5 a. m. to 8 p. m..	1302.6
1 p. m. to 2 p. m.....	160.8		

The month of greatest total amount of sunshine is May and the month of the greatest percentage of total possible sunshine is September. The hour of the greatest absolute amount of sunshine is from 1 to 2 p. m. for the annual total, but varies between 10 a. m. and 4 p. m. in the different months.

AERIAL RESEARCH IN DENMARK.

M. Leon Teisserenc de Bort presented a communication upon the use of kites and sounding balloons as practised at Viborg (Denmark) by the Franco-Scandinavian committee.

The object of this enterprise is to study, in as continuous a manner as possible, during a certain number of months, the variations of the meteorological elements in the middle strata of the atmosphere. The loca-